

2862/D01/Y01/SYNX/SYNX/JW

In the Claims:

Please cancel claims 22-55 without prejudice and add new claims 56-63 such that the claims read as follows:

Claims 1-55 (canceled).

Claim 56 (new) A system comprising:

a first processing station including a first docking station, a first frame, a first plurality of cassette storage shelves, and a first cassette mover mounted on the first frame to carry a cassette between the first plurality of shelves and the first docking station;

a second processing station including a second docking station, a second frame, a second plurality of cassette storage shelves, and a second cassette mover mounted on the second frame to carry a cassette between the second plurality of shelves and the second docking station; and

an interstation cassette mover adapted to transport a cassette between processing stations, the interstation cassette mover comprising:

a first wafer cassette support and transport mechanism adapted to allow wafer cassettes to be delivered to and retrieved from at least the first processing station;

a second wafer cassette support and transport mechanism adapted to allow wafer cassettes to be delivered to and retrieved from at least the second processing station; and

a handoff mechanism adapted to transfer a wafer cassette between the first and second wafer cassette support and transport mechanisms.

2862/D01/Y01/SYNX/SYNX/JW

Claim 57 (new) The system of claim 56 wherein each of the first and second wafer cassette support and transport mechanisms is adapted to support an end effector.

Claim 58 (new) The system of claim 56 wherein the handoff mechanism is a rotary mechanism.

Claim 59 (new) A method comprising:

providing a system having:

a first processing station including a first docking station, a first frame, a first plurality of cassette storage shelves, and a first cassette mover mounted on the first frame to carry a cassette between the first plurality of shelves and the first docking station;

a second processing station including a second docking station, a second frame, a second plurality of cassette storage shelves, and a second cassette mover mounted on the second frame to carry a cassette between the second plurality of shelves and the second docking station; and

an interstation cassette mover adapted to transport a cassette between the first and second processing stations;

delivering a cassette from the first processing station to a first wafer cassette support and transport mechanism of the interstation cassette mover;

moving the cassette from the first wafer cassette support and transport mechanism to a second wafer cassette support and transport mechanism of the interstation cassette mover; and

delivering the wafer cassette to the second processing station.

2862/D01/Y01/SYNX/SYNX/JW

Claim 60 (new) The method of claim 59 wherein moving the cassette from the first wafer cassette support and transport mechanism to a second wafer cassette support and transport mechanism of the interstation cassette mover comprises rotating the wafer cassette.

Claim 61 (new) A system comprising:

- a first cassette mover coupled to a first processing station and adapted to deliver cassettes to and remove cassettes from a docking station of the first processing station;

- a second cassette mover coupled to a second processing station and adapted to deliver cassettes to and remove cassettes from a docking station of the second processing station; and

- an interstation cassette mover adapted to transport cassettes between the first cassette mover and the second cassette mover, the interstation cassette mover comprising:

- a first wafer cassette support and transport mechanism adapted to allow wafer cassettes to be delivered to and retrieved from at least the first processing station;

- a second wafer cassette support and transport mechanism adapted to allow wafer cassettes to be delivered to and retrieved from at least the second processing station; and

- a handoff mechanism adapted to transfer a wafer cassette between the first and second wafer cassette support and transport mechanisms.

2862/D01/Y01/SYNX/SYNX/JW

Claim 62 (new) The system of claim 61 wherein each of the first and second wafer cassette support and transport mechanisms is adapted to support an end effector.

Claim 63 (new) The system of claim 61 wherein the handoff mechanism is a rotary mechanism.